

### Abstract of the Disclosure

A process and system for separating metals from a waste composition and for producing a reusable glass product is disclosed. The process includes heating waste materials containing at least one glass forming substance to a temperature sufficient to volatilize any volatile metals contained within the waste material. The waste material is also heated to a temperature and for a time sufficient for substantially all of the glass forming substances contained within the material to melt and form a molten glass. In one embodiment, the waste materials are heated in a reducing atmosphere in a direct contact radiant heating device, such as an electric arc furnace.

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